

MULTILAYER MICROCAVITY DEVICES AND METHODS

ABSTRACT OF THE DISCLOSURE

Microcavities and micropores that are microscopic (< 1 mm) in width and depth and contain any number of individually-addressable electrodes, separated by insulators, along the walls of each cavity. The conducting materials, and the insulator materials can be deposited alternately onto a starting substrate, which is typically an oxidized silicon wafer or polyimide film, but may be any substrate that shows good adhesion to the materials layered on it. The cavities are etched through these layers, perpendicular to the plane of the substrate, exposing the layers at their edges. Pores may be carved entirely through the device.